

## ABSTRACT

This invention relates to a method of establishing a master unit in a multi-unit parallel system. Each module with a respective number is connected through a bus, and has a different host-identifying pulse width  $T_s$  and a host-releasing pulse width  $T_w$ . According to the respective numbers, each module sends its host-identifying pulse to the bus and receives the feedback pulse, and then establishes a master unit among all of modules after comparing the feedback pulse width  $T_r$  and the host-releasing pulse width  $T_w$ . This method effectively realizes a decentralized controlling strategy for phase synchronization in a parallel inverter system and ensures that only one master unit exists in the parallel system. The connection of the multi-string parallel signal bus is simple, and can be connected in circle to provide the redundancy. Compared with the prior art, it is much simple in structure and flexible in configuration and adjustment, and has more reliability and real-time capability.